Contents of Volume 30, 1991

Number One

VM/ESA: A single system for centralized and distributed computing 4
W. T. Fischofer

VM Data Spaces and ESA/XC facilities 14
J. M. Gdaniec and J. P. Hennessy

ESA/390 interpretive-execution architecture, foundation for VM/ESA 34
D. L. Osisek, K. M. Jackson, and P. H. Gum

VM/ESA CMS Shared File System 52
R. L. Stone, T. S. Nettleship, and J. Curtiss

Coodinated Resource Recovery in VM/ESA 72
B. A. Maslak, J. M. Showalter, and T. J. Szczygielski

Systems management for Coordinated Resource Recovery 90
R. B. Bennett, W. J. Bitner, M. A. Musa, and M. K. Ainsworth

VM/ESA support for coordinated recovery of files 107
C. C. Barnes, A. Coleman, J. M. Showalter, and M. L. Walker

Number Two

Common Cryptographic Architecture Cryptographic Application Programming Interface 130
D. B. Johnson, G. M. Dolan, M. J. Kelly, A. V. Le, and S. M. Matyas

Key handling with control vectors 151
S. M. Matyas

A key-management scheme based on control vectors 175
S. M. Matyas, A. V. Le, and D. G. Abraham

ESA/390 Integrated Cryptographic Facility: An overview 192
P. C. Yeh and R. M. Smith, Sr.

Transaction Security System 206
D. G. Abraham, G. M. Dolan, G. P. Double, and J. V. Stevens

Transaction Security System extensions to the Common Cryptographic Architecture 230
D. B. Johnson and G. M. Dolan

Number Three

SNA route generation using traffic patterns 250
S. C. Baade

A base for portable communications software 259
S. H. Goldberg and J. A. Mouton, Jr.

Perspectives on multimedia systems in education 280
S. Reisman and W. A. Carr

FORTRAN for clusters of IBM ES/3090 multiprocessors 296
R. J. Sahulka, E. C. Plachy, L. J. Scarborough, R. G. Scarborough, and S. W. White

Partial compilation of REXX 312
R. Y. Pinter, P. Vortman, and Z. Weiss

A C programming model for OS/2 device drivers 322
D. T. Feriozi

A knowledge-based system for MVS dump analysis 336
N. G. Lenz and S. F. L. Saelens

Modeling and software development quality 351
S. H. Kan

Integrated hypertext and program understanding tools 363
P. Brown

Technical note—The WATINFO face server and associated utilities 393
A. Appel, G. A. Cuomo, E. A. Overly, J. A. Walicki, and R. E. Yozzo

Number Four

The IBM family of APL systems 416
A. D. Falkoff

APL2: Getting started 433
J. A. Brown and H. P. Crowder

Extending the domain of APL 446
M. T. Wheatley

Storage management in IBM APL systems 456
R. Trimble

Putting a new face on APL2 469
J. R. Jensen and K. A. Beaty

The APL IL Interpreter Generator 490
M. Alfonseca, D. Selby, and R. Wilks

Parallel expression in the APL2 language 498
R. G. Willhoft

The foundations of suitability of APL2 for music 513
Stanley Jordan and Erik S. Friis

Verification of the IBM RISC System/6000 by a dynamic biased pseudo-random test program generator 527
A. Aharon, A. Bar-David, B. Dorfman, E. Gofman, M. Leibowitz, and V. Schwartzburd

APL2 as a specification language for statistics 539
N. D. Thomson

Advanced applications of APL: logic programming, neural networks, and hypertext 543
M. Alfonseca

Language as an intellectual tool: From hieroglyphics to APL 554
D. B. McIntyre

A personal view of APL 582
K. E. Iverson